DOCUMENT RESUME

ED 283 561 JC 870 301

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TITLE Comparing Test Anxiety Levels between Assessment Center Students Who Have Participated in an Orientation Session and Those Who Have Not.
PUB DATE Mar 87
NOTE 36p.; Ed.D Practicum, Nova University.
PUB TYPE Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160) -- Dissertations/Theses - Practicum Papers (043)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Community Colleges; Comparative Analysis; *Program Effectiveness; Relaxation Training; *School Orientation; Student Personnel Services; *Test Anxiety; *Test Wiseness; Two Year Colleges; *Two Year College Students
IDENTIFIERS *Oxnard College CA

ABSTRACT

A study was conducted at Oxnard College to assess the effectiveness of a multimodal orientation program designed by the college's Assessment Center to reduce test anxiety traumas by explaining theories of stress and techniques for stress reduction, self-help breathing, muscle relaxation, and creative visualization. The Test Anxiety Inventory (TAI) was administered to a control group of 24 students who did not participate in the orientation session and to an experimental group of 24 students who took the TAI after the orientation session. TAI results indicated that the students who participated in the orientation session had significantly lower test anxiety, worry, and emotionality levels than those who did not participate. Participants indicated to the Assessment Center staff that they appreciated the time and attention that was focused on their test anxiety prior to taking tests at the Center, and that they would be interested in more in-depth information related to test-taking strategies and relaxation techniques. The TAI and an outline of the orientation program are appended. (EJV)

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COMPARING TEST ANXIETY LEVELS BETWEEN ASSESSMENT CENTER STUDENTS WHO HAVE PARTICIPATED IN AN ORIENTATION SESSION AND THOSE WHO HAVE NOT

APPLIED EDUCATIONAL RESEARCH AND EVALUATION

by

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A PRACTICUM PRESENTED TO NOVA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

NOVA UNIVERSITY
MARCH 1987

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ABSTRACT

There is strong evidence to support that multimodal approaches are the most desirable in reducing test anxiety among college students. Oxnard College's Assessment Center Planning Committee has developed an Orientation with a primary emphasis on reducing test anxiety traumas, that is a multimodal approach.

The purpose of this research proposal was to compare the test anxiety levels between those Oxnard College students who participated in an orientation with those who did not. The research hypothesis of this study was that there are significantly higher mean test scores between the Assessment Center students who participated in an orientation prior to testing than those who did not participate. Procedures included the administration of a questionnaire addressing test anxiety levels to a control and experimental group. This study was conducted during the fall semester of 1986.

The results of the study indicated that the Assessment Center students who participated in a student orientation had significantly lower test anxiety levels than those who did not participate in the orientation. Furthermore, the Worry (TAI/W) and Emotionality (TAI/E) levels of the students participating in the orientation were also

significantly lower than those who did not have the benefit of the orientation.

The following recommendations were made based on the results and interpretation of this study: (1) Assessment Center Faculty share the results of this study with the entire Counseling Faculty, (2) The Assessment Center Faculty share the results of this study with the Dean of Vocational Education, the Vice-President of Student Services and the District Office, (3) The Assessment Center Faculty continue to review and revise the student orientation by; a) ask the entire Counseling Faculty to review and critique each component of the orientation for its relative importance; b) ask the entire Oxnard Faculty to review and critique (and possibly participate in) the orientation to assess for clarity and understanding; c) ask the entire Oxnard College Faculty to make suggestions and improvements that would enhance the orientation from their own discipline's viewpoint. (4) More communication and literature should be generated from the Assessment Center/Counseling Department to faculty on identification and treatment modalities of test anxiety; (5) Consult with other Assessment Centers in the state to exchange information on the subject of test anxiety, test-taking strategies and student orientations, and (6) Offer a seminar on a volunteer basis to all interested faculty on how to incorporate test anxiety components in the classroom when administering tests.

TABLE OF CONTENTS

Page

ABSTRACT ii

INTRODUCTION 1

Statement of the Problem. 2

Background and Significance 3

Review of Literature. 5

Definition of Terms 9

Limitations 10

Assumptions 10

PROCEDURES 12

Introduction. 12

Instrument. 12

Procedures for Collection of Data 13

Procedures for Treatment of Data. 15

RESULTS. 17

Table 1 17

Table 2 18

Table 3 18

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS 20

BIBLIOGRAPHY 24

APPENDIXES

A. Letter and Questionnaire. 26

B. Orientation Outline 27

INTRODUCTION

Treatment of test anxiety should reduce or eliminate adverse test anxiety experiences (Hickey, 1980). Research suggests that the cognitive, affective, and physiological components of test anxiety are interrelated in that these components in addition to a global test anxiety, are negatively related to test performance (Green, 1980). When traditional approaches are utilized in a treatment package, the results are very favorable in treating those problem-specific components of test anxiety (Hickey, 1980). Treatment packages lead to the reduction of irrelevant cognitive activity, the reduction of unpleasant affect, the reduction of physiological activity, and the increase in test performance (Denny, 1980).

It has been well documented in literature that students oriented to positive strategies prior to test taking can improve their test taking experience (Cohen, 1984). Moon Chang, (1986) indicated that test anxiety appears to be a multi-dimentional problem that requires a treatment program that includes techniques designed to address a number of factors that produce test anxious behaviors and a process of teaching the proper skills to remediate the deficiencies. Oxnard College Academic/ Career Center Planning Committee, hereafter referred to

as the Planning Committee, is composed of Oxnard College administrators and professional staff with backgrounds in the areas of labor market planning, counseling, testing, vocational testing, vocational assessment, special education, and specializations in various types of learning disabilities. Additionally, they hold credentials and/or licensure in administration, educational psychology, marriage, family and child counseling, and/or rehabilitation counseling. This innovative Assessment Center Planning Committee has initiated an assessment center orientation for Oxnard College Assessment Center students with a primary emphasis on reducing test anxiety traumas.

The effectiveness of this orientation, as indicated by measured test anxiety levels of Oxnard College students participating in the program, now needs to be evaluated and will be the topic of this Practicum.

Statement of the Problem

The evaluation of established programs within an institution is a necessary as well as important task. Support and continuation for such programs needs to be based on research conclusions and recommendations in order to be valid. An accountability for educational programs becomes even more important as educators are faced with decreased funding. This study was to compare the test anxiety levels between Assessment Center students who have participated in an orientation session prior to test taking and those who had not. This comparison was deemed

appropriate to evaluate the Assessment Center Orientation's effect on reducing the test anxiety levels of Oxnard College students. The results of this study will assist the Assessment/Counseling Departments in determining the validity of the orientation component of the assessment center.

Background and Significance

Test anxiety is a pervasive problem on the campus. While anxiety in test situations may actually facilitate the performance of some individuals, more often it is disruptive and leads to performance decrements (Spielberger, 1975). Many students are so disturbed by test anxiety that they seek professional assistance to help them cope with its debilitating effects (Spielberger, 1975). Test anxiety theory was introduced more than two decades ago by George Mandler and Seymour B. Sarason (1952, 1953) to account for the effects of anxiety on performance in test situations. In their research, test anxiety was inferred from responses to a questionnaire that inquired about past experiences in testing situations (Sarason and Mandler, 1952).

Mandler and Sarason (1952) found that anxious college students performed more poorly on intelligence than students who were low in test anxiety, and that decrements in the performance of highly anxious students were most pronounced when tests were administered under stressful, ego-involving conditions. In order to explain these

performance decrements, Mandler and Sarason assumed that two kinds of learned drives were evoked in testing situations; (1) learned drives and (2) learned anxiety drives.

Like Mandler, Sarason & Wine (1971) assumes that test anxious persons react to evaluative threat with self-oriented, interfering responses. But she places greater emphasis on the attention that is given to these distractive cognitive processes by test-anxious individuals. Wine proposes that under stress high test-anxious persons divide their attention between "self-relevant" and "task-relevant" responses while low test-anxious persons focus their attention more fully on the task.

Test anxiety appears to be a multidimensional problem that requires a treatment program that includes techniques designed to address a number of factors that produce test-anxious behaviors and a process of teaching the proper skills to remediate the deficiencies (Chang, 1986). College students react with various emotions related to either success or to failure as they go through the temporally-ordered achievement stages, namely, test-anticipation stage, test-preparation stage, test-taking stage and test-reaction stage (Covington, 1985). In order to succeed in optimizing performance among test anxious students, the most effective strategies likely involve direct instruction in productive thinking skills and improved study skills as well as methods to neutralize

the disruptive effects (emotionality component) of test anxiety (Covington, 1984).

Oxnard College Assessment Center is gearing up to test over 4,000 students for the 1987-1988 academic year. The orientation component developed for utilization in the assessment center is a costly component. The administration at Oxnard College is demanding more accountability by imposing budget restrictions as well as program reviews/ evaluations of the effectiveness of the department's services. It was deemed significant that the Center be able to evaluate the effect that the orientation component is having on reducing test anxiety of the assessment center students. Once the effectiveness of the orientation component is measured, the results of the Practicum can be used to justify budget allocations and program expansion for the department's continued utilization of the component, possible modifications of the component, or elimination of its use altogether.

Review of Literature

The literature reviewed in this study includes readings on test anxiety, methods for decreasing test anxiety, success and failure perceptions in an achievement situation, test anxiety in performance, and test anxiety in academic achievement. Special emphasis will be given to those readings on test anxiety treatment programs and reduction techniques. There will also be a section on the Test Anxiety Inventory ("Test Attitude

Inventory") (Consulting Psychologists Press, 1980), hereafter referred to as the TAI, which will be the instrument selected to measure test anxiety in this study. The resources utilized for the literature search included the libraries of the University of California Los Angeles, California State University Los Angeles, and California State University Northridge.

The TAI was designed to evaluate the effectiveness of various behavior therapies in the treatment of college students suffering from test anxiety. The validity data for the TAI presented by Spielberger (1980) is generally construct in nature, consisting of factor analyses and correlations with other personality tests. The research results indicate that the TAI and its subscales may provide reliable and valid measures of test anxiety as a situation-specific personality trait. The pattern of correlations outlined by Spielberger (1980) of the TAI scales with the Test Anxiety Scale (TAS), Worry and Emotionality Questionnaire (WEQ) and the State-Trait Anxiety Inventory (STAI) and A-State scales provides evidence of the concurrent and construct validity of the TAI. According to Devito (1983), the TAI in his opinion is probably the strongest inventory in its theoretical and psychometric development of the scales measuring specific aspects of test anxiety.

Some individuals report worry and tension in connection with the preparation for undertaking of tests.

This phenomenon is referred to as "test anxiety." It has been shown in numerous studies that those who complain of test anxiety do indeed perform more poorly than those who do not (Holroyd, Westbrook, Wolf, and Badhorn, 1978). Considerable research also indicated that high test anxious individuals of comparable ability tend to have lower scores on standardized instruments (Krohne and Lauz, 1982, Sarason, 1980, Wine, 1980, 1982). Wine (1982) indicated that this is particularly true when tasks are difficult and undertaken in a stressful and evaluative environment. Arkin, Detchon and Maruyama (1982) found that high-test-anxious subjects felt their effort was less effective and regarded themselves as having less ability than low-test-anxious subjects regardless of success or failure experience.

Chang (1986) noted that test anxiety appears to be a multi-dimentional issue that requires a treatment program that includes techniques designed to address a number of factors that produce test anxious behaviors and a process of teaching the proper skills to remediate the deficiencies. According to Covington, (1985) students react with various emotions related to either success or to failure as they go through the temporally-ordered achievement stages, mainly; test-anticipation stage, test preparation stage, test taking stage, and test reaction stage. Covington (1984) noted that in order to succeed in optimizing performance among test anxious students, the

most effective strategies likely would involve direct instruction in productive thinking skills and improved study skills as well as methods to neutralize the disruptive effects (emotionality and worry components of test anxiety). Studies conducted by Tyron (1980) and (Allen, Elias and Zlotlow, 1980) indicated that almost any types of treatments seem to reduce self-reported test anxiety (emotionality aspect of test anxiety). Included in these techniques are: attentional treatment, covert reinforcement, cognitive therapy, modeling, inoculation, systematic rational restructuring, desensitization, implosion, relaxation, cognitive modification, study skills, pseudotherapy, group mediation, meditation, hypnosis, and even credible placebo procedures.

Hickey (1980) strongly supports an alternative approach in addressing test anxiety that is the development of treatment packages which incorporates treatment components designed specifically to deal with several components of the problem. Chang (1986) concurs in that he suggests that treatments have to be designed so as to reduce both the discomfort of emotionality and the cognitive interference of worry simultaneously. Chang (1985) also, noted that almost any type of treatment seemed to reduce the self-reported emotional aspect of test anxiety; however, changing a student's academic performance would be another matter entirely. In summary of this overview of the area of test anxiety, it appears

regarding treatment, that two different approaches are commonly used. The first being the traditional approach, where a specific treatment is selected and applied to test anxiety. The second is to construct a treatment package to deal with those problem-specific components of test anxiety which have been empirically demonstrated to be related to test performance.

Although the research results reviewed were not conclusive, it appears that the multimodal approaches are the most desirable to reduce test anxiety of college students.

Definition of Terms

In initiating this study, some basic terms were identified to help understand the intent and purpose of this study in assisting and interpreting the results. The selected terms are listed below:

1. Test Anxiety: The reported worry and tension in connection with the preparation for and the taking of tests.
2. Academic/Career Assessment: To help determine the academic, career, and/or vocational training areas where the participant has the best chance of success.
3. Assessment Center Students: Any student enrolled in Oxnard College, who additionally enrolls in a ½ unit assessment course.
4. Assessment Center Orientation: A multimodal process including; group counseling, stress management

techniques, relaxation skills, guided visualization, and pertinent test taking information.

5. Assessment Specialist: Full-time Oxnard College certificated staff member with the background and skills in the area of counseling, testing, and assessment.

Limitations

The study will have limitations that will be identified. These limitations may place restrictions upon the reliability, validity, applicability, or general use of the study. In considering the intent and scope of this study, the following limitations were identified.

1. Participants will be limited to Oxnard College students who come to the college's Academic/Career Assessment Center.
2. The study will be limited to day students.
3. Moderator variables of the participants will not be considered in the study. Variables such as age, career goals, first year student and second year student could possibly effect the outcome being considered.

Assumptions

In initiating the study, some basic assumptions were made in relation to Assessment Center students at Oxnard College. It was assumed that:

1. The two groups of participants in this study will be homogeneous.

2. All participants will have the same understanding of the terms used in the Test Anxiety Inventory (Test Attitude Inventory").
3. All participants had some experience with the test taking process prior to involvement in the Academic/ Career Assessment Center.
4. All participants will answer all 20 questionnaire items.

PROCEDURES

Introduction

This investigation was undertaken to determine if there was a significant difference in test anxiety levels between Assessment Center students who participated in an orientation prior to testing compared to those who did not participate in the orientation. The validated and normed instrument that will be used to measure the students test anxiety levels will be the Test Anxiety Inventory ("Test Attitude Inventory"), (Consulting Psychologists Press, 1980), hereafter referred to as the TAI. The results were statistically analyzed using a t-test.

Instrument

The TAI was designed to evaluate the effectiveness of various behavior therapies in the treatment of college students suffering from test anxiety. The validity data is construct in nature, consisting of factor analysis and correlation with other personality tests. The research results indicate that the TAI and its subscales may provide reliable and valid measures of test anxiety as a situation-specific personality trait. The pattern of correlations outlined by Spielberger (1980) of the TAI scales with the Test Anxiety Scale (TAS), Worry and Emotionality Questionnaire (WEQ) and the State-Trait

Anxiety Inventory (STAI) and A-State scales provides evidence of the concurrent and construct validity of the TAI. According to DeVito (1983), the TAI, in his opinion, is probably the strongest inventory in its theoretical and psychometric development of the scales measuring specific aspects of test anxiety.

Procedures for Collection of Data

The procedures undertaken for this study included administering a questionnaire (TAI) addressing test anxiety levels. The TAI was administered to a control and experimental group during the fall 1986 semester. The control group consisted of 24 Oxnard College students requesting services from the Academic/Career Assessment Center. These students were not preselected. The first two groups of students arriving for testing at the Assessment Center on the first selected day of testing, were given the TAI without first participating in the orientation. Students are tested in groups of 12 at the Center; therefore, the number 24 was selected for this study because two groups of 12 were tested for both the control and experimental groups. The experimental group also consisted of 24 Oxnard College students requesting services from the Center. Again, these students were not preselected. The first two groups of students arriving for testing at the Assessment Center on the second selected day of testing was the experimental group. However, the experimental group received the Assessment Center Orientation prior to being administered the TAI.

The TAI contains 20 questions rated on a 4 point scale; from almost never to almost always. The variables include how an individual feels while taking tests including: gittery, upset stomach, fast heartbeat, panicky, and nervous.

The TAI, was designed to evaluate the effectiveness of various behavior therapies in the treatment of college students suffering from test anxiety. The research results indicate that the TAI and its subscales may provide reliable and valid measures of test anxiety as a situation-specific personality trait (Spielberger, 1980).

The TAI was purchased from Consulting Psychologists Press. It was administered, as indicated above, to the control and experimental groups. A 100 percent return rate resulted on all inventories. The Oxnard College Assessment Specialist administered, collected, and scored all tests given to all participants in both the experimental and control groups. The Introduction Letter and Inventory that was given to each participant may be found in Appendix A of this Proposal.

The Orientation Component (Appendix B) was given to the experimental group prior to the administration of the TAI. The orientation was given on the same day as the TAI.

All 20 items were used to determine the TAI total score. Because each response may be weighed from 1 through 4, the minimum TAI total score is 20 and the maximum is 80. The subscales, that measure the two major components of

test anxiety, are Worry (TAI/W) and Emotionality (TAI/E) subscales are: 3,4,5,6,7,14,17, and 20. The items on the TAI/E subscales are: 2,8,9,10,11,15,16 and 18. Mean scores and standard deviations were determined for both the scale and subscale.

Procedures for Treatment of Data

The Null Hypothesis for this investigation is that there is no significant difference in test anxiety levels of students, as revealed on the TAI, between those students having experienced the Assessment Center Orientation and those not having experienced such an orientation process.

Alternative Hypothesis I

(H_a1): Students having experienced an assessment orientation will have lower test anxiety levels than those students not having experienced such a program component.

Alternative Hypothesis II

(H_a2): Students having experienced an assessment orientation will have higher test anxiety levels than those students not having experienced such a program component.

The level of significance upon which the researcher must decide to either accept or reject the Null Hypothesis is the 5 percent level. This level was chosen to protect against a Type I or Type II error.

The mean factor scores and standard deviations were applied to a two-tailed, independent t-test. The t-test was used because the parametric design of the instrument

and sample size made this test most desirable. The independent t-test was used because there were two different groups of less than 30 in each being tested.

RESULTS

The Null Hypothesis--the hypothesis of "no relationship or difference"--is the one actually tested statistically. It is an arbitrary convention hypothesizing that any relation or difference in the findings is due to chance or sampling error and puts this supposition to a probability test (Isaac, 1985:184).

Table 1

TAI Results: Total Scores
First Hypothesis Test

	Mean Score	Standard Deviation
Control Group (n=24)	59	9.49599
Experimental Group (n=24)	50	6.28649
Computed t value = 3.89		
Critical t value with 46 degrees of freedom at the .05 level of significance = 2.013		

Table 1 The critical value of t for a .05 level of significance for a two-tailed t test with 46 degrees of freedom was 2.013. The calculated t score (3.89) exceeds the critical t score of 2.013; so there was a strong possibility that the difference in the means was not due to chance. Therefore, the first Null Hypothesis was rejected because the control group had a higher mean score.

The Alternate Hypothesis I (H_aI) was accepted; that the experimental group had a lower mean total than the control group, thus lower test anxiety levels.

Table 2

TAI Results: Worry (TAI/W) Scores
Second Hypothesis Test

	Mean Score	Standard Deviation
Control Group (n=24)	26	4.10704
Experimental Group (n=24)	18	5.67923
Computed t value = 5.33		
Critical t value with 46 degrees of freedom at the .05 level of significance = 2.013		

Table 2 The critical t value was 2.013, as in the first hypothesis test. The calculated t value, 5.33 exceeded the critical t value, 2.013. Therefore, there was a 95 percent probability that the difference in the mean (TAI/W) scores between the two groups was not due to chance. Thus, the Null Hypothesis was rejected and the Alternate Hypothesis that the experimental group had a lower mean (TAI/W) score than the control group was accepted (H_a1).

Table 3

TAI Results: Emotionality (TAI/E)
Third Hypothesis Test

	Mean Score	Standard Deviation
Control Group (n=24)	22	3.70956
Experimental Group (n=24)	15	3.45546
Computed t value = 7.13		
Critical t value with 46 degrees of freedom at the .05 level of significance = 2.013		

Table 3 The critical t value was once again 2.013. The calculated t value, 7.13 exceeded the critical t value, 2.013; so there was a strong possibility that the difference in the mean (TAI/E) scores between the two groups was not due to chance. The Null Hypothesis was rejected and the Alternate Hypothesis that the experimental group has a lower mean (TAI/E) score than the control group was accepted (H_aI).

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

The results of the study indicated that the Assessment Center students who participated in a student orientation had significantly lower test anxiety levels, than those who did not participate in the orientation. Furthermore, the Worry (TAI/W) and Emotionality (TAI/E) levels of the students participating in the orientation were also significantly lower than those who did not have the benefit of the orientation.

The literature review does indeed support the need to provide treatment programs to students that include techniques addressing test anxiety factors. It has been demonstrated in numerous studies that those students who are provided with treatment programs focusing on test anxiety reduction techniques do indeed perform better on tests than those not having the benefit of such training (Holroyd, Westbrook, Wolf and Badhorn, 1978).

The students who participated in the study commented to the Assessment Specialist that they appreciated the time and attention that was focused on their test anxiety prior to taking any tests in the Assessment Center. They also indicated that they would be interested in more in-depth information related to test-taking strategies

and relaxation techniques, and suggested a semester course designed for this purpose. Presently, Oxnard College offers only a Math Anxiety Reduction Course.

The implications of this study can be far reaching for the students, faculty, and the administration. The implications for assessment specialists and counselors, to accept their role in not only assessing for test anxiety in students, but also as a skill, that can be taught, could have a tremendous impact on the retention of Oxnard College's students. Students having high levels of test anxiety could be identified early and can be referred to appropriate support services.

The literature supports the need to offer various modalities, such as the Oxnard College Assessment Center Orientation for the treatment of test anxiety (Chang, 1985). This allows the student to perform at their very best during a testing situation.

The Assessment Center/Counseling Faculty should view test-taking strategies as a skill that is needed by all students, not only to perform at their best during the assessment process, but also during their participation in coursework at Oxnard College and beyond. The Assessment Center/Counseling Faculty misses a critical opportunity and fails in its responsibility each time it loses a student due to failing grades that are related to high levels of test anxiety. It is important to the survival of the college to have a low attrition rate; however, it is

becoming even more critical when community colleges are faced with decreased funds and number of faculty. A student orientation, focusing on a multi-modal approach in reducing test anxiety and incorporating test-taking strategies, prior to any assessment will enable counselors to direct those students to the necessary support services in order to assist them to perform at their best. Additionally, it will provide immediate results in reducing test anxiety prior to taking any tests scheduled in the Assessment Center, thus resulting in more appropriate counselings and academic placements, and perhaps lowering the attrition rate for Oxnard College.

Based on the results and interpretation of this study, the following recommendations are suggested:

1. The Assessment Center Faculty share the results of this study with the entire Counseling Faculty.
2. The Assessment Center Faculty share the results of this study with the Dean of Vocational Education, the Vice-President of Student Services and the District Office.
3. The Assessment Center Faculty continue to review and revise the student orientation by:
   A. Ask the entire Counseling Faculty to review and critique each component of the orientation for its relative importance.
   B. Ask the entire Oxnard College faculty to review and critique (and possibly) participate in the

orientation to assess for clarity and understanding.

C. Ask the entire Oxnard College faculty to make suggestions and improvements that would enhance the orientation from their own discipline's viewpoint.

4. More communication and literature should be generated from the Assessment Center/Counseling Department to faculty on identification and treatment modalities of test anxiety.
5. Consult with other Assessment Centers and Counseling Departments in the state to exchange information on the subject of test anxiety, test-taking strategies and student orientations.
6. Offer a seminar on a volunteer basis to all interested faculty on how to incorporate test anxiety components in the classroom when administering tests.

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APPENDIX A

November 19, 1986

Dear Student,

In an attempt to evaluate the effectiveness of the Oxnard College Assessment Center Orientation, we are asking you to participate in taking the Test Anxiety Inventory, ("Test Attitude Inventory"). Your cooperation and participation will assist all of us involved in the Assessment Center to improve the quality of services we provide to Oxnard College students.

Thank you, in advance, for your participation and assistance. It is greatly appreciated!!

If you have any specific questions, please feel free to contact me.

Sincerely,

Joan Jones, M.S.
Assessment Facilitator
(X214)

TEST ATTITUDE INVENTORY

Developed by Charles D. Spielberger
in collaboration with
H.P. Gonzalez, C.J. Taylor, G.R. Ross and W.D. Anton

NAME_____ DATE_____ SEX M F

T_____ W_____ E_____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
1. I feel confident and relaxed while taking tests	①	②	③	④
2. While taking examinations I have an uneasy, upset feeling	①	②	③	④
3. Thinking about my grade in a course interferes with my work on tests	①	②	③	④
4. I freeze up on important exams	①	②	③	④
5. During exams I find myself thinking about whether I'll ever get through school	①	②	③	④
6. The harder I work at taking a test, the more confused I get	①	②	③	④
7. Thoughts of doing poorly interfere with my concentration on tests	①	②	③	④
8. I feel very jittery when taking an important test	①	②	③	④
9. Even when I'm well prepared for a test, I feel very nervous about it	①	②	③	④
10. I start feeling very uneasy just before getting a test paper back	①	②	③	④
11. During tests I feel very tense	①	②	③	④
12. I wish examinations did not bother me so much	①	②	③	④
13. During important tests I am so tense that my stomach gets upset	①	②	③	④
14. I seem to defeat myself while working on important tests	①	②	③	④
15. I feel very panicky when I take an important test	①	②	③	④
16. I worry a great deal before taking an important examination	①	②	③	④
17. During tests I find myself thinking about the consequences of failing	①	②	③	④
18. I feel my heart beating very fast during important tests	①	②	③	④
19. After an exam is over I try to stop worrying about it, but I just can't	①	②	③	④
20. During examinations I get so nervous that I forget facts I really know	①	②	③	④

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577 College Avenue, Palo Alto, California 94306

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APPENDIX B

ORIENTATION OUTLINE

ORIENTATION - SCHEDULE 2 HOURS

10:00 - 10:10 O.C. Program Explanation/Orientation

10:10 - 10:15 Question and Answer Session

10:15 - 10:30 Stress Barometer/Scoring

10:30 - 11:00 Theory of Stress

1. Stress Reduction Techniques
   a) Stress--always check first with a doctor

2. Symptoms of stress

3. Relaxation is a gift you give yourself

4. Teach self-help breathing

5. Muscle Relaxation Techniques
   1. Relaxation of arms:
      a. Clench right hand (make a fist) and tense forearm.
      b. Clench left hand and tense left forearm.
      c. Tense both right and left hands and forearms.
      d. Tense right biceps (front of upper arm) by bending right arm at elbow.
      e. Tense left biceps by bending left arm at elbow.
      f. Tense right triceps (back muscle, upper arm) by stiffening right arm.
      g. Tense left triceps by stiffening left arm.

   2. Relaxation of head area:
      a. Wrinkle forehead.
      b. Frown and crease brows.
      c. Close eyelids tightly and keep them closed throughout the remaining exercises.
      d. Rotate eyes in clockwise circles. Return to center.

e. Rotate eyes in counterclockwise circles. Return to center.
f. Rotate eyes to far right.
g. Rotate eyes to far left.
h. Rotate eyes to top of sockets.
i. Rotate eyes to bottom of sockets.
j. Wrinkle nose and cheeks.
k. Press lips together tightly (or purse them).
l. Clench jaws.
m. Press chin against chest.
n. Press tongue against roof of mouth.
o. Begin to swallow, and hold. Tense throat.
p. Tense throat and larynx muscles by humming a high note without making any sounds. Then hum down the scale to a low note.

3. Relaxation of trunk:
a. Tense shoulder muscles by raising shoulders as though touching ears.
b. Pull shoulders back and tighten upper back muscles.
c. Arch lower back and tighten lower back muscles.
d. Pull shoulders inward to the front and tighten chest muscles.
e. Tighten stomach muscles by pulling inward and downward.

4. Relaxation of Legs:
a. Tighten right upper leg.
b. Tighten left upper leg.
c. Tense both upper legs. Pull legs together at knees and straighten legs.
d. Tense right calf and shin (raise foot as though to touch leg).
e. Tense left calf and shin.
f. Tense right foot and toes.
g. Tense left foot and toes.

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